THE LIFE HISTORY OF *TRAPEZITES HETEROMACULA* MEYRICK AND LOWER (LEPIDOPTERA: HESPERIIDAE)

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Introduction

Trapezites heteromacula Meyrick and Lower, 1902 is distributed from the islands of the Torres Strait and Cape York to Kuranda, north Queensland. Its life history was previously unknown.

Several male and female specimens were seen and collected by the authors in September, 1975, at Tozer's Gap, 18 km north-west from Iron Range airport, Cape York Peninsula, Queensland. A female was observed by Miller to lay an egg at the base of a *Lomandra* plant growing at the edge of dry forest. The egg was subsequently reared to the adult stage by Atkins.

Life history

Food plant. Lomandra longifolia Labille, family Xanthorrhoeaceae.

Egg (Figs 1, 2). Diam. 1 mm, dome-shaped, white to pale green when first laid, turning within 24 hours to cream with orange dorsal and lateral markings. Laid 11 a.m. Eastern Standard Time, 26 September 1975, in cloudy humid weather.

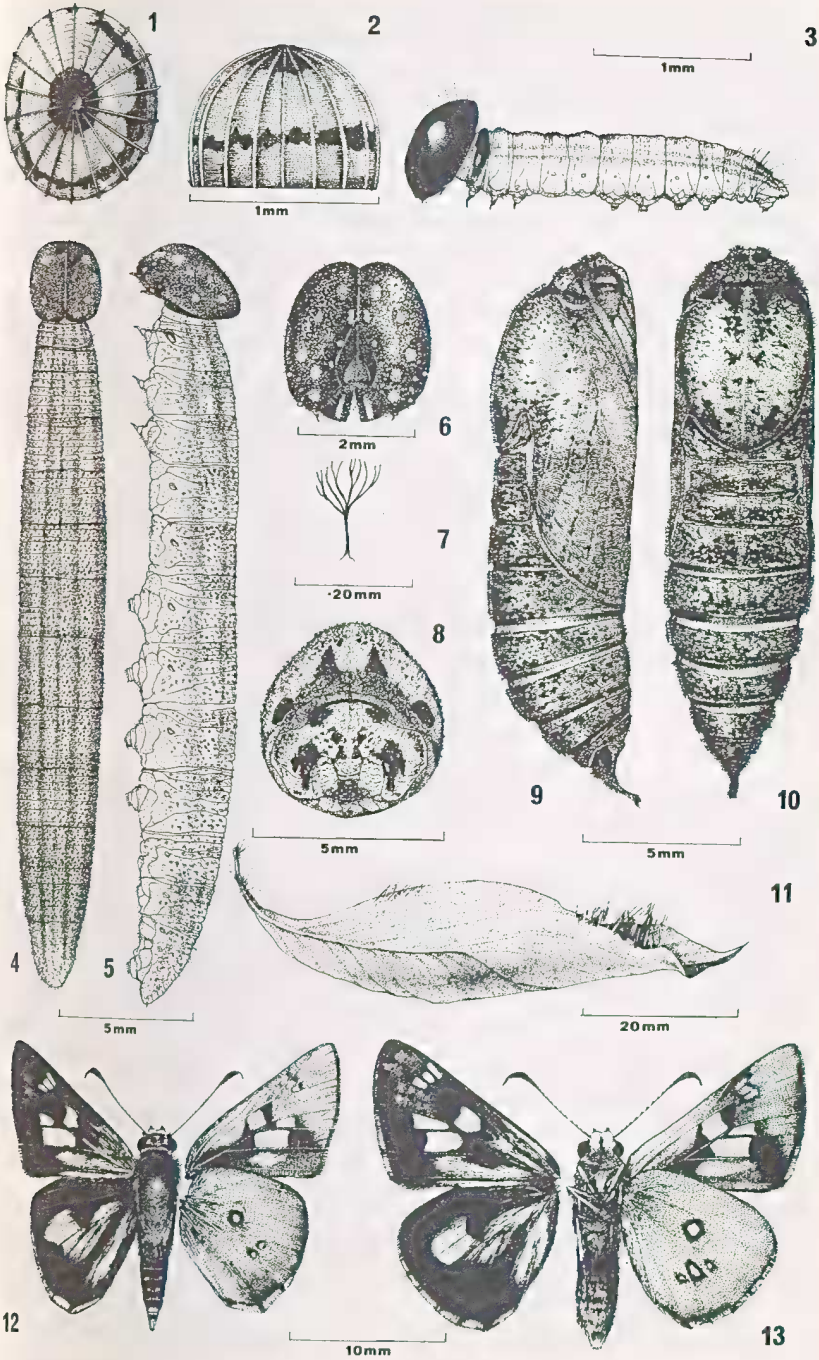
Larva. 1st instar (Fig. 3): length 2.5 mm; hatched 5 October 1975; head shiny black with long white setae on frons and dorsal area; prothoracic plate black; body grey-green with a brown dorsal line and two pale brown dorsolateral lines; long pale setae on posterior segments.

2nd-5th instars (4th instar, Figs 4, 5): head semi-gloss black with several dull red-brown spots to frons, coarsely granulose; body with skin covered with minute tubercles and setae, grey-green with fawn-pink anterior and posterior segments, brown dorsal and dorsolateral lines as in first instar.

2nd instar, length 5 mm, reached approximately 26 October, 1975.
3rd instar, length 10 mm, reached approximately 10 November, 1975.
4th instar, length 18 mm, reached approximately 28 November, 1975.
5th instar, length 30 mm, reached approximately 2 January, 1976.

Pupa (Figs 9, 10). Length 17 mm (pupation occurred 31 January 1976) fawn to grey-fawn; spiracles black and prominent; paired dark markings at anterior and posterior edges of thorax, mottled dark brown markings on dorsal and lateral areas of thorax and abdominal segments. Frons, dorsal and lateral areas of pupa covered with multi-branched setae (Fig. 7). Sclerotised short projections, mottled black, on pupal cap. Adult male emerged 16 February 1976 (now in A. Atkins collection).

FIGS 1-13. Life history of *Trapezites heteromacula*: (1, 2) egg, dorsal and lateral views; (3) 1st instar larva; (4, 5) 4th instar larva, dorsal and lateral views; (6) head of 5th instar larva; (7) pupal setae; (8) anterior end of pupa; (9, 10) pupa, lateral and dorsal views; (11) shelter of 5th instar larva; (12, 13) adult male (reared) and female from Iron Range, Queensland, each showing upperside at left and underside at right.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The egg was laid on the upperside of a leaf of the food plant. The freshly emerged larva ate the egg shell before retreating between the leaves of the food plant at the base. The second instar larva made a shelter from *Lomandra* leaves drawn together by silk. This shelter was extended and reinforced by later instars. The larva emerged in the late evening and early morning to eat, cutting oblique slices from the *Lomandra* leaves. The fourth and fifth instar larvae sheltered in a rolled dicotyledonous leaf which was secured to the base of the food plant by silk. Pupation occurred in this final shelter. The pupa was attached by the cremaster to a pad of silk. It was very active, sharply vibrating and vigorously twisting the abdominal segments when disturbed.

The life history duration was recorded in the cooler climate of Victoria, the larva readily accepting *Lomandra filiformis* (Thunb.). The life history of this species is very similar to that of *Trapezites eliena* (Hewitson) and *Trapezites iacchus* (Fabricius) but the larva is smaller and the larval head darker. The multi-branched pupal setae of *Trapezites heteromacula* are a distinguishing character.

HYPOLIMNAS MISIPPUS (L.) AND *EUPLOEA CORE CORINNA* (W. S. MACLEAY) (LEPIDOPTERA: NYMPHALIDAE) FROM NORFOLK ISLAND

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Euploea core corinna (W. S. Macleay) and *Hypolimnas misippus* (L.) are recorded for the first time from Norfolk Island, South Pacific Ocean.

Twelve species of butterflies have been recorded from Norfolk Island (Smithers, 1970; 1970a; 1975). This note records the capture and observation of two unrecorded species in 1974 and 1975 as follows:-

Euploea core corinna (W. S. Macleay). 1 specimen, 12.iii.1975 (P. Prole); 1 specimen 10.iv.1975 (O. Evans). In addition to the above captured specimens the species was seen on 4.v.1975 (O. Evans); 14.v.1975 (O. Evans); 3.vi.1975 (B. Evans); 8.vii.1975 (B. Evans). Specimens are in the author's collection.

Hypolimnas misippus (L.) 1 ♀, 3.vi.1974 (B. Evans). Specimen in the author's collection; photograph of same in the Australian Museum, Sydney.

These new records bring the number of known species for Norfolk Island to fourteen.

References

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